We claim:

1. A method of treating an osteoarthritis related disorder in a mammal comprising administering a compound to said mammal, wherein said compound further comprises a therapeutically effective amount of an aminosugar derivative, wherein said aminosugar derivative is selected from the group consisting of a derivative of glucosamine, a derivative galactosamine, a derivative of cyclitol, a derivative of iminocyclitol, and pharmaceutically acceptable salts thereof.

2. The method according to claim 1, wherein said osteoarthritis related disorder is selected from the group consisting of osteoarthritis, rheumatoid arthritis, synovitis, subchondral bone edema, and cartilage degradation.

3. The method according to claim 2, wherein said osteoarthritis related disorder is osteoarthritis.

4. The method according to claim 2, wherein said osteoarthritis related disorder is rheumatoid arthritis.

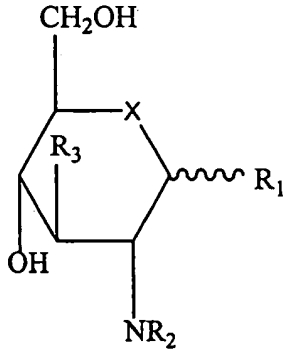
5. The method according to claim 2, wherein said osteoarthritis related disorder is synovitis.

6. The method according to claim 2, wherein said osteoarthritis related disorder is subchondral bone edema.

7. The method according to claim 2, wherein said osteoarthritis related disorder is cartilage degradation.

8. The method according to claim 1, wherein said aminosugar derivative is a derivative of glucosamine or a pharmaceutically acceptable salt thereof.

9. The method according to claim 8, wherein said derivative of glucosamine is selected from the group consisting of compounds of formula V wherein:



X is O;

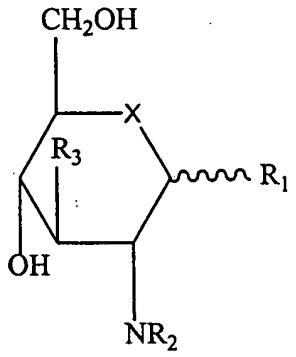
R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and 1-carboxyethyloxy.

10. The method according to claim 8, wherein said derivative of glucosamine is a derivative of N-acetyl glucosamine or a pharmaceutically acceptable salt thereof.

11. The method according to claim 10, wherein said derivative of N-acetyl glucosamine is selected from the group consisting of compounds of formula V wherein:



X is O;

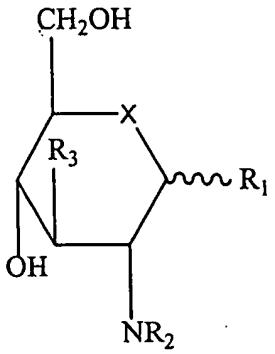
R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and carboxyethoxy.

12. The method according to claim 1, wherein said aminosugar derivative is a derivative of cyclitol or a pharmaceutically acceptable salt thereof.

13. The method according to claim 12, wherein said derivative of cyclitol is selected from the group consisting of compounds of formula V wherein:



X is CH_2;

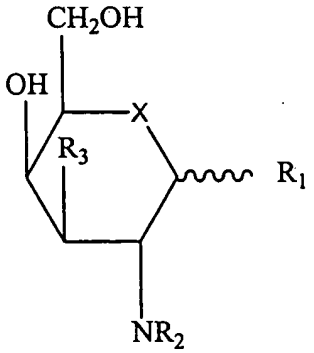
R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and 1-carboxyethyloxy.

14. The method according to claim 1, wherein said aminosugar derivative is a derivative of galactosamine or a pharmaceutically acceptable salt thereof.

15. The method according to claim 14, wherein said derivative of galactosamine is selected from the group consisting of compounds of formula VI wherein:



X is O;

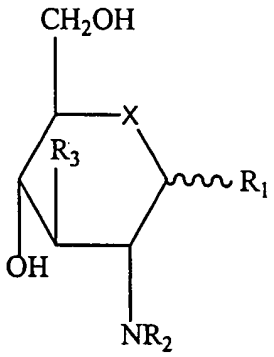
R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and 1-carboxyethyloxy.

16. The method according to claim 1, wherein said aminosugar derivative is a derivative of iminocyclitol or a pharmaceutically acceptable salt thereof.

17. The method according to claim 12, wherein said derivative of iminocyclitol is selected from the group consisting of compounds of formula V wherein:



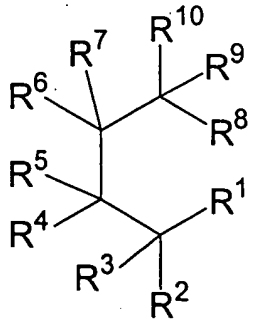
X is NH;

R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and 1-carboxyethyloxy.

18. The method according to claim 1, wherein said aminosugar derivative is selected from the group consisting of formula I, wherein:



R^1 is: CHO, CH_2OH, or CO_2H;

R^2 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^3 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^2, R^3 =O;

R^4 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^5 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^4, R^5 =O;

R^6 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^7 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^6, R^7 =O;

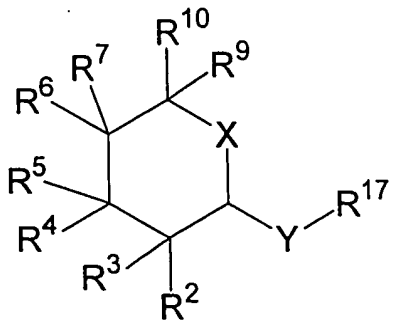
R^8 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^9 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^8, R^9 =O; and

R^{10} is: H, CH_3, CH_2OH, CH_2OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2OCOR^{12} (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), CH_2Cl, CH_2Br, CH_2F, CH_2SH, CH_2SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, CH_2NH_2, $CH_2NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or

CH_2NHCOR^{16} (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative).

19. The method according to claim 1, wherein said aminosugar derivative is selected from the group consisting of formula II, wherein:



X is: O, S, CH_2, NH, or NR^{20} (where R^{20} is cyclic or acyclic alkyl, aryl, heteroxyclic group);

Y is: O, S, CH_2, or NH;

R^{17} is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^2 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^3 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^2, R^3 =O;

R^4 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^5 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^4, R^5 =O;

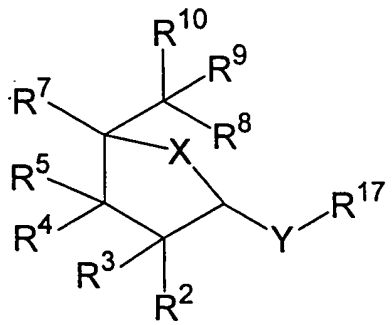
R^6 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^7 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^6, R^7 =O;

R^9 is: H, C-linked cyclic or acyclic alkyl, aryl, or heterocyclic group; and

R^{10} is: H, CH_3, CH_2OH, CH_2OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2OCOR^{12} (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), CH_2Cl, CH_2Br, CH_2F, CH_2SH, CH_2SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2NH_2, $CH_2NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or CH_2NHCOR^{16} (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative).

20. The method according to claim 1, wherein said aminosugar derivative is selected from the group consisting of formula III, wherein:



X is: O, S, CH_2, NH, or NR^{20} (where R^{20} is cyclic or acyclic alkyl, aryl, heterocyclic group);

Y is: O, S, CH_2, or NH;

R^{17} is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or

acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^2 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^3 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^2, R^3 =O;

R^4 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^5 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^4, R^5 =O;

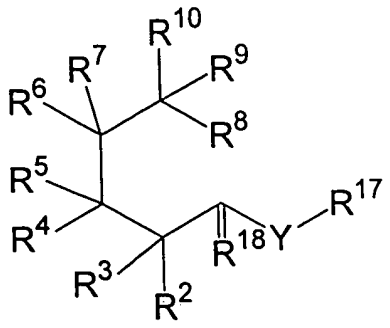
R^7 is: H, C-linked cyclic or acyclic alkyl, aryl, or heterocyclic group;

R^8 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^9 is: H, C-linked cyclic or acyclic alkyl, aryl, or heterocyclic group; and

R^{10} is: H, CH_3, CH_2OH, CH_2OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2OCOR^{12} (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), CH_2Cl, CH_2Br, CH_2F, CH_2SH, CH_2SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2NH_2, $CH_2NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or CH_2NHCOR^{16} (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative).

21. The method according to claim 1, wherein said aminosugar derivative is selected from the group consisting of formula IV, wherein:



Y is: O, S, CH_2, or NH;

R^{17} is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^{18} is: H, O, NH, or NR^{19} (where R^{19} is cyclic or acyclic alkyl, aryl, heterocyclic group or acyl-linked cyclic or acyclic alkyl, aryl, or heterocyclic group);

R^2 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^3 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^2, R^3 =O;

R^4 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^5 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^4, R^5 =O;

R^6 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^7 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^6, R^7 =O;

R^8 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^9 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^8, R^9 =O; and

R^{10} is: H, CH_3, CH_2OH, CH_2OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2OCOR^{12} (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), CH_2Cl, CH_2Br, CH_2F, CH_2SH, CH_2SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, CH_2NH_2, $CH_2NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2NHCOR^{16} (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative).

22. The method of claim 1, wherein said aminosugar derivative further comprises anti-infammatory properties.

23. The method of claim 22, wherein said anti-inflammatory properties of said aminosugar derivative are the result of interference of said aminosugar derivative with cytokine-inducible gene expression in chondrocytes.

24. The method of claim 1, wherein said aminosugar derivative further comprises chondroprotective properties.

25. The method of claim 24, wherein said chondroprotective properties of said aminosugar derivative are the result of interference of said aminosugar derivative with cytokine-inducible gene expression in chondrocytes.

26. The method of claim 1, wherein said aminosugar derivative further comprises improved protein binding.

27. The method of claim 26, wherein said protein is an intracellular receptor.

28. The method of claim 26, wherein said protein is an extracellular recptor.

29. The method of claim 1, wherein said aminosugar derivative further comprises improved penetration of the chrondrocytes.

30. The method of claim 1, wherein said aminosugar derivative further comprises increased hydrophobicity.

31. The method of claim 1, wherein said aminosugar derivative is administered to a mammal by means selected from the group consisting of intra-articular administration, topical administration, and intra-muscular administration.

32. The method of claim 31, wherein said administration of said aminosugar derivative is by intra-articular administration.

33. The method of claim 32, wherein said administration of said aminosugar derivative is by intra-articular administration as a controlled release formula.

34. The method of claim 33, wherein said aminosugar derivative is administered by intra-articular administration while contained in a matrix as a controlled release formulation.

35. The method of claim 32, wherein said intra-articular administration of said aminosugar derivative results in retardation of cartilage degeneration.

36. The method of claim 32, wherein said intra-articular administration of said aminosugar derivative results in reduction of synovial membrane inflammation.

37. The method of claim 36, wherein said reduction of synovial membrane inflammation occurs at the macroscopic level.

38. The method of claim 36, wherein said reduction of synovial membrane inflammation occurs at the microscopic level.

39. The method of claim 31 wherein said administration of said aminosugar derivative is by topical administration.

40. The method of claim 31, wherein said administration of said aminosugar derivative is by intra-muscular administration.

41. The method of claim 1, wherein said aminosugar derivative is administered in combination with an anti-inflammatory drug.

42. The method of claim 1, wherein said aminosugar derivative is administered in combination with a hexosaminidase inhibitor.

43. The method of claim 1, wherein said method of treating said condition is selected from the group consisting of treatment of said condition, prevention of said condition, and lessening the severity of said condition.

44. The method of claim 43, wherein said method of treating said condition consists of treatment of said condition.

45. The method of claim 43, wherein said method of treating said condition consists of prevention of said condition.

46. The method of claim 43, wherein said method of treating said condition consists of lessening the severity of said condition.

47. A formulation for the treatment of osteoarthritis related disorders comprising a compound, wherein said compound further comprises a therapeutically effective amount of an aminosugar derivative, wherein said aminosugar derivative is selected from the group consisting of a derivative of glucosamine, a derivative galactosamine, a derivative of a cyclitol, a derivative of iminocyclitol, and pharmaceutically acceptable salts thereof.

48. The formulation according to claim 47, wherein said osteoarthritis related disorder is selected from the group consisting of osteoarthritis, rheumatoid arthritis, synovitis, subchondral bone edema, and cartilage degradation.

49. The formulation according to claim 48, wherein said osteoarthritis related disorder is osteoarthritis.

50. The formulation according to claim 48, wherein said osteoarthritis related disorder is rheumatoid arthritis.

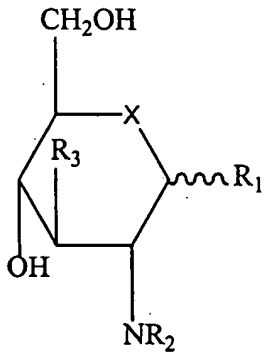
51. The formulation according to claim 48, wherein said osteoarthritis related disorder is synovitis.

52. The formulation according to claim 48, wherein said osteoarthritis related disorder is subchondral bone edema.

53. The formulation according to claim 48, wherein said osteoarthritis related disorder is cartilage degradation.

54. The formulation according to claim 47, wherein said aminosugar derivative is a derivative of glucosamine or a pharmaceutically acceptable salt thereof.

55. The formulation according to claim 54, wherein said derivative of glucosamine is selected from the group consisting of compounds of formula V wherein:



X is O;

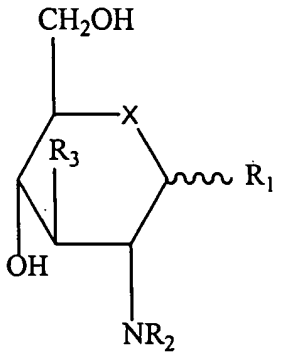
R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and 1-carboxyethyloxy.

56. The formulation according to claim 54, wherein said derivative of glucosamine is a derivative of N-acetyl glucosamine or a pharmaceutically acceptable salt thereof.

57. The formulation according to claim 56, wherein said derivative of N-acetyl glucosamine is selected from the group consisting of compounds of formula V wherein:



X is O;

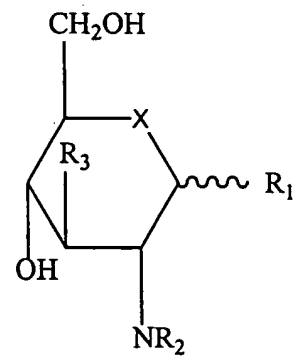
R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and carboxyethoxy.

58. The formulation according to claim 47, wherein said aminosugar derivative is a derivative of cyclitol or a pharmaceutically acceptable salt thereof.

59. The formulation according to claim 58, wherein said derivative of cyclitol is selected from the group consisting of compounds of formula V wherein:



X is CH_2

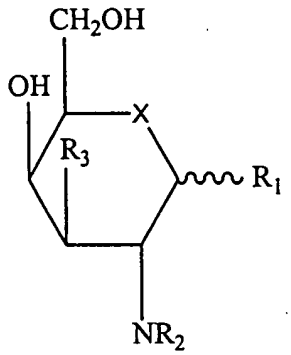
R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and 1-carboxyethyloxy.

60. The formulation according to claim 47, wherein said aminosugar derivative is a derivative of galactosamine or a pharmaceutically acceptable salt thereof.

61. The formulation according to claim 60, wherein said derivative of galactosamine is selected from the group consisting of compounds of formula VI wherein:



X is O;

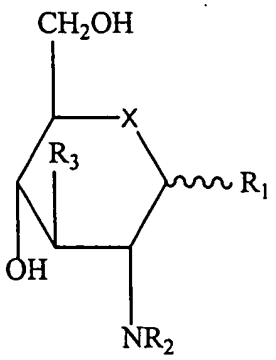
R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and 1-carboxyethyloxy.

62. The method according to claim 1, wherein said aminosugar derivative is a derivative of iminocyclitol or a pharmaceutically acceptable salt thereof.

63. The method according to claim 12, wherein said derivative of iminocyclitol is selected from the group consisting of compounds of formula V wherein:



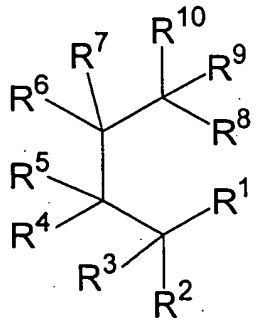
X is NH;

R_1 is selected from the group consisting of: methoxy,benzyloxy, *p*-nitrophenoxy, hydroxyl, 5-bromo-4-chloro-indolyl, tetradecanoyl-BSA, and aminitol;

R_2 is selected from the group consisting of: acetyl, benzoyl, trifluoroacetyl, aminoacetyl, and butyryl; and

R_3 is selected from the group consisting of: hydroxyl, (R)-1-carboxyethyl, and 1-carboxyethyloxy.

64. The formulation according to claim 47, wherein said aminosugar derivative is selected from the group consisting of formula I, wherein:



R^1 is: CHO, CH_2OH, or CO_2H;

R^2 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^3 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^2, R^3 =O;

R^4 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^5 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^4, R^5 =O;

R^6 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

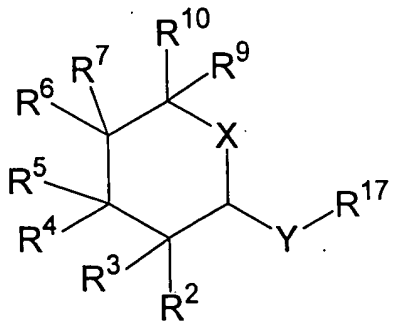
R^7 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^6, R^7 =O;

R^8 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^9 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^8, R^9 =O; and

R^{10} is: H, CH_3, CH_2OH, CH_2OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2OCOR^{12} (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), CH_2Cl, CH_2Br, CH_2F, CH_2SH, CH_2SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, CH_2NH_2, $CH_2NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or CH_2NHCOR^{16} (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative).

65. The formulation according to claim 47, wherein said aminosugar derivative is selected from the group consisting of formula II, wherein:



X is: O, S, CH_2, NH, or NR^{20} (where R^{20} is cyclic or acyclic alkyl, aryl, heteroxyclic group);

Y is: O, S, CH_2, or NH;

R^{17} is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^2 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^3 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^2, R^3 =O;

R^4 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^5 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^4, R^5 =O;

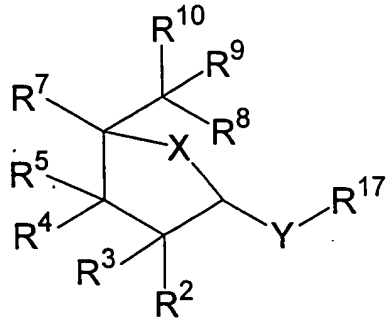
R^6 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^7 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^6, R^7 =O;

R^9 is: H, C-linked cyclic or acyclic alkyl, aryl, or heterocyclic group; and

R^{10} is: H, CH_3, CH_2OH, CH_2OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2OCOR^{12} (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), CH_2Cl, CH_2Br, CH_2F, CH_2SH, CH_2SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2NH_2, $CH_2NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or CH_2NHCOR^{16} (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative).

66. The formulation according to claim 47, wherein said aminosugar derivative is selected from the group consisting of formula III, wherein:



X is: O, S, CH_2, NH, or NR^{20} (where R^{20} is cyclic or acyclic alkyl, aryl, heterocyclic group);

Y is: O, S, CH_2, or NH;

R^{17} is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^2 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^3 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^2, R^3 =O;

R^4 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^5 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^4, R^5 =O;

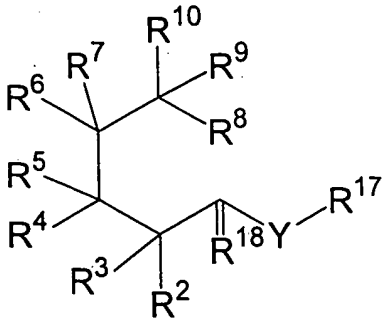
R^7 is: H, C-linked cyclic or acyclic alkyl, aryl, or heterocyclic group;

R^8 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^9 is: H, C-linked cyclic or acyclic alkyl, aryl, or heterocyclic group; and

R^{10} is: H, CH_3, CH_2OH, CH_2OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2OCOR^{12} (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), CH_2Cl, CH_2Br, CH_2F, CH_2SH, CH_2SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2NH_2, $CH_2NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or CH_2NHCOR^{16} (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative).

67. The formulation according to claim 47, wherein said aminosugar derivative is selected from the group consisting of formula IV, wherein:



Y is: O, S, CH_2, or NH;

R^{17} is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^{18} is: H, O, NH, or NR^{19} (where R^{19} is cyclic or acyclic alkyl, aryl, heterocyclic group or acyl-linked cyclic or acyclic alkyl, aryl, or heterocyclic group);

R^2 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^3 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^2, R^3 =O;

R^4 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^5 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^4, R^5 =O;

R^6 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^7 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^6, R^7 =O;

R^8 is: H, OH, OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), $OCOR^{12}$ (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), Cl, Br, F, SH, SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, NH_2, $NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), or $NHCOR^{16}$ (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative);

R^9 is: H, C-linked cyclic or acyclic alkyl, aryl, heterocyclic group, or R^8, R^9 =O; and

R^{10} is: H, CH_3, CH_2OH, CH_2OR^{11} (where R^{11} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2OCOR^{12} (where R^{12} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative), CH_2Cl, CH_2Br, CH_2F, CH_2SH, CH_2SR^{13} (where R^{13} is ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group, CH_2NH_2, $CH_2NR^{14}R^{15}$ (where R^{14} or R^{15} is H or ether-linked cyclic or acyclic alkyl, aryl, heterocyclic group), CH_2NHCOR^{16} (where R^{16} is cyclic or acyclic alkyl, aryl, heterocyclic, or amino acid derivative).

68. The formulation of claim 47, wherein said aminosugar derivative further comprises anti-infammatory properties.

69. The formulation of claim 68, wherein said anti-inflammatory properties of said aminosugar derivative are the result of interference of said aminosugar with cytokine-inducible gene expression in chondrocytes.

70. The formulation of claim 47, wherein said aminosugar derivative further comprises chondroprotective properties.

71. The formulation of claim 70, wherein said chondroprotective properties of said aminosugar derivative are the result of interference of said aminosugar with cytokine-inducible gene expression in chondrocytes.

72. The formulation of claim 47, wherein said aminosugar derivative further comprises improved protein binding.

73. The formulation of claim 72, wherein said protein is an intracellular receptor.

74. The formulation of claim 72, wherein said protein is an extracellular receptor.

75. The formulation of claim 47, wherein said aminosugar derivative further comprises improved penetration of the chrondrocytes.

76. The formulation of claim 47, wherein said aminosugar derivative further comprises increased hydrophobicity.

77. The formulation of claim 47, wherein said aminosugar derivative is administered to a mammal by means selected from the group consisting of intra-articular administration, topical administration, and intra-muscular administration.

78. The formulation of claim 77, wherein said administration of said aminosugar derivative is by intra-articular administration.

79. The formulation of claim 78, wherein said administration of said aminosugar derivative is by intra-articular administration as a controlled release formula.

80. The formulation of claim 79, wherein said aminosugar derivative is administered by intra-articular administration while contained in a matrix as a controlled release formulation.

81. The formulation of claim 78, wherein said intra-articular administration of said aminosugar derivative results in retardation of cartilage degeneration.

82. The formulation of claim 78, wherein said intra-articular administration of said aminosugar results in reduction of synovial membrane inflammation.

83. The formulation of claim 82, wherein said reduction of synovial membrane inflammation occurs at the macroscopic level.

84. The formulation of claim 82, wherein said reduction of synovial membrane inflammation occurs at the microscopic level.

85. The formulation of claim 77 wherein said administration of said aminosugar derivative is by topical administration.

86. The formulation of claim 77, wherein said administration of said aminosugar derivative is by intra-muscular administration.

87. The formulation of claim 47, wherein said aminosugar derivative is administered in combination with an anti-inflammatory drug.

88. The formulation of claim 47, wherein said aminosugar derivative is administered in combination with a hexosaminidase inhibitor.

89. The formulation of claim 47, wherein said treatment of said osteoarthritis related disorders is selected from the group consisting of treating said osteoarthritis related disorders, preventing said osteoarthritis related disorders, and lessening the severity of said osteoarthritis related disorders.

90. The formulation of claim 89, wherein said treatment consists of treating said osteoarthritis related disorders.

91. The formulation of claim 89, wherein said treatment consists of preventing said osteoarthritis related disorders.

92. The formulation of claim 89, wherein said treatment consists of lessening the severity of said osteoarthritis related disorders.